

In the Claims:

1. (Currently amended) A dynamic network address registration system, comprising:

a first device;

a second device, said first device and said second device adapted to communicate via a communications network; and

a controller coupled to said communication network, said controller adapted to store dynamic network address information for said first device therein, said controller adapted to store dynamic network address information for said second device therein, said controller further adapted to provide said address information of said second device to said first device such that a communication path can be efficiently established between said first device and said second device.

2. (Original) The dynamic network address registration system of Claim 1 wherein said communication path is efficiently established between said first device and said second device without requiring said first device and said second device to have static addresses.

3. (Original) The dynamic network address registration system of Claim 1 wherein said controller is adapted to establish a virtual private network (VPN) between said first device and said second device via said communications network.

4. (Original) The dynamic network address registration system of Claim 1 wherein said first device, said second device, and said controller are further adapted to be coupled to a second communication network.
5. (Original) The dynamic network address registration system of Claim 4 wherein said controller is adapted to inform said first device, via said second communication network, as to whether or not said second device is coupled to said communications network.
6. (Original) The dynamic network address registration system of Claim 4 wherein said controller is adapted to instruct said second device, via said second communications network, to couple to said communications network.
7. (Original) The dynamic network address registration system of Claim 4 wherein said communications network is the internet.
8. (Original) The dynamic network address registration system of Claim 4 wherein said second communications network is a circuit switched network.
9. (Currently amended) A method for establishing a communication path between a first device and a second device, said method comprising the steps of:
 - a) said first device contacting a controller to determine the status of said second device;
 - b) said first device obtaining, from said controller, dynamic network address information for said second device; and

c) establishing a communication path via a communications network between said first device and said second device, said first device having a non-static address.

10. (Currently amended) The method for establishing a communication path between a first device and a second device as recited in Claim 9 wherein said step a) comprises:

said first device obtaining from said controller, via a second communications network, information as to whether or not said second device is coupled to said communications network.

11. (Currently amended) The method for establishing a communication path between a first device and a second device as recited in Claim 10 wherein said step a) further comprises the step of:

al) provided said second device is not coupled to said communications network, said first device instructing said second device, via said second communications network, to couple to said communications network and to said controller.

12. (Currently amended) The method for establishing a communication path between a first device and a second device as recited in Claim 10 wherein said step a) further comprises the step of:

al) provided said second device is not coupled to said communications network, said controller instructing said second device, via said second communications network, to couple to said communications network and to said controller.

13. (Currently amended) The method for establishing a communication path between a first device and a second device as recited in Claim 9 wherein said step b) further comprises the step of:

b1) said first device providing said controller with non-static address information for said first device.

14. (Currently amended) The method for establishing a communication path between a first device and a second device as recited in Claim 9 wherein said step c) comprises efficiently establish said communication path between said first device and said second device, via said communications network, without requiring said first device and said second device to have static addresses.

15. (Currently amended) The method for establishing a communication path between a first device and a second device as recited in Claim 9 wherein said step c) comprises establishing a virtual private network (VPN) between said first device and said second device via said communications network.

16. (Original) The method for establishing a communication path between a first device and a second device as recited in Claim 9 wherein said communications network is the internet.

17. (Original) The method for establishing a communication path between a first device and a second device as recited in Claim 9 wherein said second communications network is a circuit switched network.

18. (Currently amended) A controller for efficiently establishing a communication path between a first device and a second device, said controller comprising:

means for coupling said controller to a communications network;

means for storing dynamic network address information for said first device therein;

means for storing dynamic network address information for said second device therein;

means for providing said dynamic network address information of said second device to said first device such that a said communication path can be efficiently established between said first device and said second device via said communications network.

19. (Original) The controller of Claim 18 wherein said communication path is efficiently established between said first device and said second device without requiring said first device and said second device to have static addresses.

20. (Original) The controller of Claim 18 wherein said controller is adapted to establish a virtual private network (VPN) between said first device and said second device via said communications network.

21. (Original) The controller of Claim 18 wherein said first device, said second device, and said controller are further adapted to be coupled to a second communications network.

22. (Original) The controller of Claim 21 wherein said controller is adapted to inform said first device, via said second communications network, to couple to said communications network.

23. (Original) The controller of Claim 21 wherein said controller is adapted to instruct said second device, via said second communications network, to couple to said communications network.

24. (Original) The controller of Claim 21 wherein said communications network is the internet.

25. (Original) The controller of Claim 21 wherein said second communications network is a circuit switched network.

26. (Currently amended) A dynamic network address minimal configuration system comprising:

- a communication network adapted to provide communication ~~paths;~~ paths, said communication network includes primary and secondary communication circuits;

- network devices coupled to said communication network, said network devices adapted to facilitate interaction and communications via said communication network; and

- a dynamic network address registration system coupled to said communication network, said dynamic network address registration system adapted to store information regarding the assignment of dynamic network addresses to said network devices and provide said information to other network devices.

27. (Currently amended) The dynamic network address minimal configuration system of Claim 26 in which said network devices are adapted to establish a network connection via said secondary communication circuit and receive an assignment of a dynamic network address which said network device then provides to said dynamic network address configuration system via said primary communication circuit.

28. (Original) The dynamic network address minimal configuration system of Claim 26 in which said communication network includes an integrated services digital network (ISDN) basic rate interface (BRI) for connectivity to a wide area network and an always on dynamic ISDN (AODI) feature is supported for said ISDN BRI.

29. (Original) The dynamic network address minimal configuration system of Claim 28 in which said network devices are adapted to establish a network connection via a D channel of said ISDN BRI and receive an assignment of a dynamic network address which said network device then provides to said dynamic network address registration system via a B channel of said ISDN BRI.

30. (Currently amended) The dynamic network address minimal configuration system of ~~Claims 26~~ Claim 26 in which one of said network devices is a router.

31. (Original) The dynamic network address minimal configuration system of Claim 26 in which one of said network devices is a network address translator (NAT).

32. (Currently amended) The dynamic network address minimal configuration system of Claim 26 in which ~~said~~ an intermediate device is adapted to facilitate the establishment of a virtual private network (VPN) communication link via the Internet between a source network device and a destination network device.

33. (Original) The dynamic network address minimal configuration system of Claim 32 wherein said VPN is implemented via said primary communication circuit.

34. (Original) The dynamic network address minimal configuration system of Claim 26 wherein said communication network includes a wide area network (WAN).

35. (Original) The dynamic network address minimal configuration system of Claim 26 wherein said communication network includes a local area network (LAN).

36. (Original) A dynamic network address registration apparatus, comprising:

an intermediate device adapted to facilitate automatic configuration of network devices with information related to dynamic network internet protocol (IP) addresses, said intermediate device comprising:

a communication port for receiving and transmitting communication frames via a communication network;

a communication frame analysis component coupled to said communication port, said communication frame analysis component adapted to analyze information included in a communication frame and recognize if said communication frame is requesting or providing a network IP address; and

an address mapping component coupled to said communication frame analysis component, said address mapping component adapted to map one of said dynamic network IP addresses to one of said network devices and provide information regarding the association of other of said network devices with other of said dynamic network IP addresses.

37. (Original) The dynamic network address registration apparatus of Claim 36 wherein said network devices are coupled to secondary communications circuit and primary communications circuits.

38. (Currently amended) The dynamic network address registration apparatus of Claim 36 wherein said intermediate device is utilized to establish a VPN ~~is established~~ via said communication network.

39. (Original) The dynamic network address registration apparatus of Claim 36 wherein said communication frame analysis component determines if a communication frame includes information to be mapped in said address mapping component.

40. (Original) The dynamic network address registration apparatus of Claim 36 wherein said communication frame analysis component determines if a communication frame is requesting information from said address mapping component.

41. (Original) The dynamic network address registration apparatus of Claim 36 wherein said communication frame analysis component extracts information identifying a desired location from a communication frame.

42. (Original) A dynamic network address configuration method comprising the steps of:

- a) obtaining a dynamic network address via a secondary communication circuit;
- b) transmitting information regarding said dynamic network address to a network address registration system via a communication system; and
- c) communicating information regarding the assignment of a dynamic network address from said network address registration system to network devices.

43. (Original) The dynamic network address configuration method of Claim 42 in which step b further comprises the step of storing in said dynamic network address registration system information regarding the association of a device and a dynamic network assigned to said device

44. (Currently amended) The dynamic network address configuration method of Claim 42 in which step c further comprises the ~~steps of~~ step of

forwarding to said network device a network address associated with
dynamic network address registration system.

45. (Currently amended) The dynamic network address configuration
method of Claim 42 in which step c further comprises the ~~steps of~~ step of
polling said dynamic network address registration system to determine if
there are updates to information regarding a registered network device.